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ABSTRACT

The monograph is an attempt to describe conditions existing today in rural America that can affect the operation and impact of vocational education in rural areas and, thus, should exercise an influence on policy making. It identifies statistical patterns and characteristics common to rural areas, both within regions and those that cut across regions. It discusses: (1) characteristics of rural school districts that define and delimit their current delivery systems and their capacity for providing education; (2) demographic characteristics of the population to be served and the ability of rural communities to provide services; (3) rural poverty and deprivation that affect the need for services and the choice of criteria by which services are targeted; (4) geographic features that influence the delivery of services; and (5) labor market characteristics that affect the programs to be offered in the curriculum and the targeting of funds. The monograph also stresses that, while people in rural communities tend to be more alike than people in large cities, rural communities across the country tend to be more unlike each other than large cities across the country; therefore, local conditions need to be carefully considered in all State and Federal policies. (Author/CM)

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A Portrait of Rural America: Conditions Affecting Vocational Education Policy

Vocational Education Study
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FOREWORD

The Vocational Education Study Project has already made clear its intention to publish papers, accounts of inquiries, and the results of selected research projects emerging from its work. These publications are in addition to the Interim and The Final Reports on the study which the National Institute of Education is charged with undertaking by the Education Amendments of 1976 (P.L. 94-492). The Institute, as that law requires, transmitted The Interim Report to the President and the Congress on September 30, 1980, and will transmit the Final Report on the mandated study to the President and the Congress no later than September 30, 1981.

Stuart A. Rosenfeld's A Portrait of Rural America: Conditions Affecting Vocational Education Policy describes selected aspects of rural life and circumstance that have implications for the formulation of Federal and State policies for vocational education in the rural and sparsely settled areas of the United States. Consequently, it draws attention to the problems of shaping legislation, particularly at the Federal level, attentive to the distinctive vocational education needs of rural populations and of deploying limited resources to meet them. In so doing, it illuminates the extent to which reliance upon uniform, Federally-legislated program instruments may frustrate the realization of the goals of Federal vocational education policy. The Portrait of Rural America sketched in Stuart Rosenfeld's paper invites fresh thinking about the substance and form of vocational education policy for that area and its inhabitants.

Henry David
Study Project Director

Gerry Hendrickson
Study Project Assistant Director

PREFACE

The Vocational Education Act of 1963, as amended by the Education Amendments of 1976, allocates funds to States and territories to be used to achieve the purpose of the Act. Part of that stated purpose is to assist the States in providing

> "ready access to vocational training or retraining which is of high quality, which is realistic in light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training."

High quality programs, employment opportunities, and the needs and interests of the individuals are not self-defining terms. They can have different means under different conditions. One condition that may affect, for example, the resources needed to provide high quality programs, the appropriate programs to be offered, and the training to fit the individuals' needs and interests is the location of the vocational education institution. It makes a major difference whether it is located in an urban, suburban or rural area.

Requirements for implementing the Act attempt to take into account local differences by considering socioeconomic and demographic factors, but the measures chosen tend to be imperfect. They rarely succeed in describing the same needs across urban, suburban and rural districts. Thus, measures typically used to influence either the distribution or use of Federal funds, such as relative property wealth, unemployment rates, or local vocational education expenditures, do not have the same properties in rural areas that they do in cities. This paper is an attempt to describe conditions existing today in rural American that can affect the operation and impact of vocational education in rural areas and, thus, should exercise an influence in policy making.

I would like to acknowledge the helpful comments I received from Dr. Henry David, Director of the Vocational Education Study and from Tom Schultz, the Team Leader for Rural Education. I also wish to acknowledge the contributions of the authors of the regional papers commissioned in conjunction with the Rural Vocational Education Study, Dr. Fred Schmidt of the University of Vermont, Dr. Daryl Hobbs of the University of Missouri, Kathy Baker-Smith of Durham, North Carolina and Frank Adams of Gatesville, North Carolina.

The ideas and opinions expressed in this paper are my own and do not necessarily represent the position or policies of the National Institute of Education or the Department of Education.

Stuart Rosenfeld

March 1981

CONTENTS

	Page
Introduction	1
The Rural School Districts	3
The People: The Demography of Rural America	11
The Need: The Nature of Rural Deprivation	18
The Rural Landscape	25
Rural Jobs and Rural Work: Distinctions and Definitions	28
The Consequences: Framing the Portrait	41
References	43

TABLES

Table 1 Current Education Expenditure Per Pupil By Metropolitan Status of School System, by State, 1976-77

Table 2 Per Capita Outlays by Region For FY '78

Table 3 Support Services For Education, 1971

Table 4 National Assessment of Educational Project Scores for 13-Year Olds Difference From National Median

Table 5 Rural Population

Table 6 Population Change, 1970-1975

Table 7 Age Distribution in Cities, 1970

Table 8 Percent Completing High School of Those Over 25, 1975

Table 9 Tax Effort For Purposes Other Than Education, 1976

Table 10 Crime Rates Per 100,000 Inhabitants, 1975

Table 11 Median Family Income, Dollars, 1978

Table 12 Population Below Poverty, 1975

Table 13 Indices of Health Care, 1975

Table 14 Population Density, 1978

Table 15 Farmland, 1976

Table 16 Distribution of Land Ownership, 1979

Table 17 Percent Changes in Employment Between 1970 and 1976

Table 18 Source of Income, Percentage of Labor Force, 1975

Table 19 Percent Self-Employment, by Sector, 1975

Table 20 Percent Underemployment, 1977

Table 21 Percent Unemployment Rates, 1980

Table 22 Percent Unemployment for Poverty Areas, 1980

Table 23 Proportioned Employed Utilizing Agricultural/Agribusiness Skills, 1975

FIGURES

Figure 1 Change in regional Population Growth, 1970-78

Figure 2 Adults With Less Than 5 Years of Schooling

Figure 3 Comparative Profile of Poor Households in Metro and Nonmetro Areas, 1975

A PORTRAIT OF RURAL AMERICA: CONDITIONS AFFECTING VOCATIONAL EDUCATION POLICY

Introduction

Few social scientists challenge the notion that rural life is distinctively different from urban life, yet definitive descriptions of "rural" tend to be elusive. Despite mass transportation and increased individual mobility, despite the pervasive influence of the media and the centralization of political and economic power, and despite the homogenizing effects of public education, differences persist. The most vivid descriptions of "rural" come from artists and writers. Paintings by Andrew Wyeth and Grandma Moses of the rural Northeast, the description of the rural South by William Faulkner and the description of the rural Midwest by Sinclair Lewis capture the essence of rural society. But, unfortunately, their words and pictures do not provide the kind of "hard" data needed for formulating policies. Consequently, we must depend upon pictures of rural life that emanate from computer printouts rather than creative prose, and rural becomes a matter of numbers, a statistical concept rather than a way of life, defined by the number of people living in a community and its distance from population centers. Thus, to satisfy the concerns of current policy makers, we will try to use the data that exist and capture the statistical essence of rural life, a tabular view of the people, the land, the poverty, the work, and the schools.

As a general rule, Federal education policies ignore the unique features of rural life. Vocational education policy is no exception. Yet consideration of local conditions has become increasingly important in ocational education policy as the goals of vocational education have been expanded to include social and economic as well as educational objectives. Vocational education today focuses on compensating for differences in ability to support schools, reducing unemployment, and generating economic growth in depressed areas. Each of these - fiscal capacity, unemployment and economic growth--has a different meaning in rural areas than in urban areas and many conventional measures do not adequately describe the needs of both. Thus, if vocational education is expected to aid the rural areas most in need, policies formulated must consider the context of policies--the social,

demographic and economic conditions that affect the available resources and the costs, the delivery and the content and, the resulting outcomes of vocational education.

To date there has been no rural advocacy group watching out for the needs of rural people to match the established urban advocacy groups such as the Urban League, the National Urban Coalition, and the Council of Great City Schools. Rural interest groups are as disparate and fragmented as the rural population itself. People in rural communities tend to be more alike than people in large cities, but rural communities across the country tend to be more unlike each other than large cities across the country and therefore the entire rural population does not operate as and cannot be treated as a single polity. Rural populations include migrant farmers in the Southwest, fisherman on the New England coast, factory workers in the South, and wheat farmers in the Midwest.

While the diversity of rural populations should not be ignored, it is counterproductive to rural interests to overemphasize the diversity because of the fact that national policy is built on the commonalities that exist. Despite the wide cultural and economic variations, there are dominant demographic and economic conditions associated with being designated rural, such as scale, isolation, cultural homogeniety within the community, and an agricultural tradition.

Within the dominant conditions there are general regional patterns which, if taken into account, could exercise an effect upon the implementation of policy, such as population density, which is lowest in the Western States; the strength of agriculture, which is greatest in the Midwest; the degree of industrialization, which is highest in the Southern States; and patterns of demographic change. There are, of course, exceptions to any generalizations. Some rural communities in the more urbanized East, for example, take on the characteristics of urban communities, and some medium-sized, but isolated, cities in the Western States, far from other urban areas, take on the characteristics of rural communities. But in order to predict what policies might work and which may not in rural areas, it is essential to understand rural conditions and how they might affect the outcomes of federal vocational education policy.

This monograph will identify statistical patterns and characteristics common to rural areas, both within regions and those that cut across

regions. 1/ It includes:

- o the school district: the characteristics of rural school districts that define and delimit their current delivery systems and their capacity for providing education;
- o the people: the demographic characteristics that describe the nature of the population to be served and the ability of rural communities to provide services;
- o the need: the descriptions of rural poverty and deprivation that affect the need for services and the choice of criteria by which services are targeted;
- o the land: the geographic features that influence the delivery of services; and
- o the jobs: the labor market characteristics that affect the programs to be offered the curriculum and the targeting of funds.

The Rural School Districts

Perceptions of rural education are often formed by memories of the past. Rural education is identified with the one-room school much as the rural home is identified with the farm. Yet the one-room school is even less representative of rural education than the farm is the rural home. Fewer than 1,100 one-room schools remain today, more as relics of the past than as models still useful under the right conditions.

Whether rural schools are one-room, three-room or consolidated, they are generally smaller than their urban counterparts. Thus, resources are constrained by diseconomies of scale. Small schools are unable to offer either the wide range of educational opportunities available to urban youth or the "extras" of urban schools--the swimming pools, well-equipped auditoriums or sophisticated physics labs. Moreover, programs requiring a large investment such as vocational education are even more restricted than the basic programs by scale. Consequently, most rural students have access to far fewer occupational programs than urban students. In fact, many rural

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1/ Some of the information in this monograph has been drawn from four descriptive regional papers, prepared for the study of vocational education in rural areas, by Daryl Hobbs, University of Missouri, Columbia, Missouri; Fred Schmidt, University of Vermont, Burlington, Vermont; Frank Adams, Gatesville, North Carolina; and Kathy Baker-Smith, Durham, North Carolina.

students have only vocational agriculture or office occupations from which to choose. In order to have more extensive programs, rural districts are confronted with the dilemma of either relinquishing control to extensive consolidation of districts or settling for fewer conventional resources.

Differences between urban and rural eudcation are confirmed by existing data. Compared to urban (or metro) districts:

- o rural parents are more satisfied with their schools;
- o rural schools and rural districts are smaller;
- o rural school districts spend less per pupil and have fewer supplemental resources available; and
- o rural students perform more poorly on standardized tests.

Smaller quantities do not necessarily reduce quality and rural people in fact claim to be quite satisfied with their schools. According to a recent Department of Housing and Urban Development survey of more than 1,000 small cities, "small cities are proud of their public schools and consider them a major asset." (Developmental Needs of Small Cities, 1979) Only 7 percent of the respondents named schools as a problem. Despite State Education Agencies' (SEAs) dissatisfaction with many rural schools, 20 percent of the small cities rated their facilities excellent and half rated them adequate. According to case studies reviewed, rural residents are also more satisfied with more limited and less specialized vocational curricula than are State and Federal administrators.

Rural schools and rural local education agencies (LEAs) often are smaller than urban schools and urban districts due to lower population density, however, size is also determined both by State policies and by local choice. Therefore, there are large regional and State variations in school district organization and school administrative policy. Size, of course, has implications for the number of programs and courses that can be supported in an area (Rosenfeld, 1977). It also is a major determinant of qualification for federal programs and inclusion in federal data gathering efforts. Many federal programs are targeted at population centers so that they may reach the maximum number of recipients. Consequently, many rural schools, districts and counties are too small to be funded. Schools and districts that do not qualify are also excluded in data collections and subsequent analyses.

In 1977, 1.2 percent of the nation's school districts had over

25,000 students, who comprised 28 percent of the public school enrollment in the country. In contrast, 26.7 percent of the school districts enrolled fewer than 300 students, who comprised only 1.2 percent of the public school enrollment in the country (Schneider 1980).

Some regional patterns of district organization are discernible (Sher and Rosenfeld, 1977). Southern States are organized around county units and thus contain relatively large districts (e.g. Alabama, 5965/ district; Georgia, 5686/ district; South Carolina, 6956/district). Northeastern States tend to follow New England-type town boundaries and consequently are much smaller (e.g. Vermont, 370/district; Maine, 854/district). Midwestern States generally follow township lines and tend to be smaller in nonmetropolitan areas (e.g., Nebraska, 271/district, South Dakota, 747/ district). Western States are mixed--the Southwestern States generally follow county boundaries and contain large districts (e.g., New Mexico, average of 8282), while the Northwestern States are more decentralized with smaller districts (e.g., Montana, 312/district, Wyoming, 1228/district). Even these State averages, however, can be misleading. The average size of nonmetro districts in Nebraska for instance, is 121; the average size of nonmetro districts in Texas is 864. The average district enrollment in the nation in fiscal 1972 for metropolitan areas was 6,360; for nonmetro areas it was 1,323.

Rural school districts may consolidate for special purposes in situations where general consolidation is rejected. One such purpose is vocational education. Area vocational education centers serving high school students from multiple districts are common in many States, particularly in the South. Other independent service units, such as the BOCES in New York or the regional education agencies in Texas, provide specialized services to rural districts that individual districts cannot afford.

Dwelling on district size and district organization obsures the character of rural schools themselves. A large LEA may include one-room schools as well as consolidated high schools, yet the statistics typically are presented aggregated at the district level, confounding intradistrict differences. Therefore, school districts can be large in terms of enrollment, but include many small schools and thus still be rural. In the past, urban/rural analyses have been made only with district or county enrollment data as an index for ruralness.

Rural school districts, on the average, spend less per pupil than urban school districts, which, on the surface, would seem to indicate pervasive inequities. Dollars, however, are simply a proxy for resources and resources less easily analyzed. On the one hand, rural LEAs have increased per unit costs due to diseconomies of scale. On the other hand, instructional costs, which comprise the bulk of school expenditures, are lower in rural areas because salaries are lower. For policy analysis, expenditures must not be examined unconditionally but in light of what they purchase.

In 1976-77, of the 46 States that reported expenditures per pupil by central city, suburbs and nonmetro classification, 35 reported nonmetro expenditures below the State average, as shown in Table 1. Almost all of the States that did not report higher nonmetro per pupil expenditures were Western States with large, sparsely populated rural areas that resulted in diseconomies of scale (e.g., Nevada, Utah, New Mexico, Arizona, Texas, Oklahoma). The States with the lowest expenditures in nonmetro areas compared to metro areas were States with large, high-cost urban centers, such as Michigan, New York, Pennsylvania and Illinois, and States with very poor rural counties, such as Mississippi and Arkansas.

The expenditure gap between the metro and nonmetro districts has apparently narrowed in recent years as State and federal aid to schools has increased. In 1972-73, the nonmetro districts were spending about 20 percent less than the central city districts and about 15 percent less than the suburban districts. The difference was mainly in instructional expenditures and services. Administration expenditures per pupil were as high or higher in nonmetro districts and transportation was significantly higher. In the Western States, nonmetro transportation expenditures per pupil were four times greater than the metro expenditures and for the nation, nonmetro expenditures per pupil for transportation were about double the expenditures in metro districts (Hughes, 1974).

Although rural per pupil expenditures still lag urban expenditures, rural school districts are not short-changed by federal programs--at least not on a purely quantitative basis. A recent Rand Corporation study of two federal programs in six States indicates that, on a per pupil basis, no urban bias exists (Bass and Berman, 1979). An analysis of all federal education programs for fiscal year 1978 shows that for elementary, secondary

TABLE 1

CURRENT EDUCATION EXPENDITURE PER PUPIL BY METROPOLITAN STATUS OF SCHOOL SYSTEM, BY STATE: 1976-77

(INCLUDES EXPENDITURES ONLY FOR PUPILS IN SCHOOL DISTRICTS WITH GRADES 1-12)

STATE OR OTHER AREA	AVERAGE (MEAN) EXPENDITURE PER PUPIL BY METROPOLITAN STATUS			
	ALL SCHOOL SYSTEMS	CENTRAL CITY SYSTEMS IN SMSA'S	SYSTEMS IN SMSA'S OUTSIDE CENTRAL CITIES	SYSTEMS OUTSIDE SMSA'S
ALABAMA	$ 757	$ 826	$ 750	$ 723
ALASKA	2496	0	0	2496
ARIZONA	1214	1216	1192	1234
ARKANSAS	812	974	782	787
CALIFORNIA	1522	1583	1488	1368
COLORADO	1439	1612	1405	1354
CONNECTICUT	1444	1519	1448	1291
DELAWARE	1361	2098	1385	1096
DIST OF COLUMBIA	1914	1914	0	0
FLORIDA	1256	1180	1351	1171
GEORGIA	952	1187	998	843
HAWAII	1559	1559	0	0
IDAHO	942	1074	774	934
ILLINOIS	1364	1533	1273	1150
INDIANA	1049	1197	967	981
IOWA	1377	1412	1351	1370
KANSAS	1229	1307	1189	1227
KENTUCKY	849	1130	813	755
LOUISIANA	946	1031	874	914
MAINE	1036	1091	1169	1011
MARYLAND	1544	1460	1623	1347
MASSACHUSETTS	1656	1913	1607	1371
MICHIGAN	1352	1520	1384	1151
MINNESOTA	1363	1763	1335	1255
MISSISSIPPI	811	1031	744	795
MISSOURI	1100	1279	1143	946
MONTANA	N.A.	N.A.	N.A.	N.A.
NEBRASKA	1356	1373	1148	1397
NEVADA	1216	1193	1195	1305
NEW HAMPSHIRE	1049	1081	996	1051

NEW JERSEY.....	$1609	$1545	$1641	$1588
NEW MEXICO.....	1186	1128	0	1212
NEW YORK.....	2210	2408	2195	1817
NORTH CAROLINA.....	1003	1135	971	963
NORTH DAKOTA.....	1207	1422	1167	1192
OHIO.....	1199	1447	1176	996
OKLAHOMA.....	936	961	875	949
OREGON.....	1555	1714	1518	1482
PENNSYLVANIA.....	1376	1691	1345	1161
RHODE ISLAND.....	1444	1632	1339	1454
SOUTH CAROLINA.....	845	1092	836	829
SOUTH DAKOTA.....	1058	1087	960	1058
TENNESSEE.....	881	1129	876	750
TEXAS.....	1046	1064	989	1083
UTAH.....	1052	1151	1009	1100
VERMONT.....	1316	0	0	1316
VIRGINIA.....	1122	1189	1260	951
WASHINGTON.....	1363	1656	1300	1297
WEST VIRGINIA.....	1434	1162	1120	998
WISCONSIN.....	1449	1633	1454	1337

SOURCE: United States Department of Education, National Center for Education Statistics, special tabulations from merged school district file.

and adult programs, nonmetro counties received more per capita than metro counties. Outlays for employment training and vocational education, however, were significantly higher in metro counties than in nonmetro counties--by more than 5-to-1 in the Southern States (See Table 2).

TABLE 2

PER CAPITA OUTLAYS BY REGION FOR FY78

	Metro Counties	Nonmetro Counties
Employment training and vocational education		
U.S.	44.8	14.8
Northeast	48.4	25.6
North-central	38.2	11.0
South	46.4	8.9
West	46.1	33.3
Elementary, secondary and adult education		
U.S.	18.4	22.5
Northeast	17.3	14.3
North-central	14.0	14.8
South	22.1	26.4
West	20.3	34.5

Source: Hendler and Reid, September, 1980

With less money to spend, it is likely that nonmetro districts provide fewer special services. Table 3 shows the relative difference in proportion of schools with two such services, guidance counselors and special education programs. Nationally, the proportion of city districts with special education is twice as great as rural districts. Further, urban areas offered more preschool education. In 1976, 35 percent more 3- to 5-year old children in metro districts attended school than in metro districts (Sher and Rosenfeld, 1977).

Having described some of the disparities in dollars and in services, we must consider the results, in evidence from the National Assessment of Education Project in the early 1970s, which indicated that rural school districts produce the lowest standardized test scores (Table 4). Only in math did the very rural districts do better than city districts. Although it cannot be inferred that fewer resources lead to lower attainment, it is evident that, when the data were obtained, the most rural schools probably were not providing the same quality of education that the more populated districts were.

TABLE 3

SUPPORT SERVICES FOR EDUCATION, 1971

	PERCENT OF DISTRICTS WITH GUIDANCE COUNSELORS			PERCENT OF DISTRICTS WITH SPECIAL EDUCATION		
	Center City	Suburban	Rural	Center City	Suburban	Rural
Northeast	100.0	78.9	56.3	94.8	76.4	47.4
Midwest	100.0	78.7	51.3	98.8	75.9	49.3
South	100.0	85.9	85.7	87.0	71.2	61.8
West	81.3	39.8	29.0	70.0	30.9	30.1
U.S.	93.8	67.2	49.8	86.3	62.2	44.9

Source: Fratoe, 1978

TABLE 4

NATIONAL ASSESSMENT OF EDUCATIONAL PROJECT SCORES FOR 13 YEAR OLDS - DIFFERENCE FROM NATIONAL MEDIAN

	Reading 1971	Writing 1970	Math 1973	Science 1970
Big City	1.4	-2.9	-3.9	-2.7
Suburbs	2.1	2.4	2.4	2.6
Medium City	0.1	2.1	0.8	0.8
Small Places	-0.6	-0.6	-0.5	0.9
Very Rural	-4.4	-4.6	-3.6	-6.3

Source: Fratoe, 1978.

The differences between urban and rural school districts, of course, are the consequences of contrasts between urban and rural conditions. Small rural district and school size are due in part to the geography and low population density. Satisfaction with schools and the curricula chosen are due in part to the nature of rural society and rural economies. The lack of resources is due in part to the depressed economic conditions of many rural communities. Poorer test scores is due in part to rural deprivation. Vocational education, which demands high costs and also more flexibility to adapt to the changing labor market, is affected even more acutely by rural conditions. The following sections will describe conditions associated with rural life that may affect vocational education programs.

The People: The Demography of Rural America

The term "rural" may suggest a mental image of a specific situation: a Yankee farmer in a New England Picture-postcard town, a Kansas farmer in a visor cap working the fields, or an Appalachian woman behind the counter of a general store in Kentucky. Most city dwellers perceive rural folk as different, simply because of the size of the community in which they live. Rural people are often depicted as elderly, self-reliant, slow-paced, possessing little formal education but considerable traditional wisdom, and with strong roots in the community. Ruralness represents an old-fashioned life style based on stability, informality and close relationships, a life which a growing number of people seek intellectually, if not actively. Obviously, these images are stereotypes. Nevertheless there are distinctive features of the rural populace and there is some truth in the images. Compared to urban (or metropolitan) communities, residents af rural communities:

- o are older;
- o have fewer years of formal education;
- o include a decreasing number of farmers; and
- o have lower taxes, but receive fewer public services.

The first question inevitably raised in any discussion of urban-rural demographic differences is: who is rural? According to the U.S. Census, rural means residence on a farm, open countryside or areas of fewer than 2,500 residents. An expanded definition sometimes used is residence on a farm, open countryside, or in a nonmetropolitan area of less than 10,000.

An alternate term frequently used because it simplifies the classification for data collection is nonmetropolitan. This is residence outside of a Standard Metropolitan Statistical Area (SMSA), a term for areas that include a city, or city and contiguous communities that utilize the central city for social and economic purposes, with at least 50,000 inhabitants. These metropolitan areas (SMSAs) are often separated into central city and suburbs for analytical purposes. In 1970, there were 53.9 million rural people (26.5 percent of the U.S.), 63.8 million nonmetropolitan people (31.4 percent of the U.S.), and 65.1 million expanded rural (32.0 percent of the U.S.).

Most available data prior to the 1980 census have been presented only according to metro or nonmetro classification. This monograph will use both metro-nonmetro and urban-rural distinctions where they exist and, further, will distinguish among nonmetro, central city, and suburban where the data permit.

Exact and comprehensive data are unnecessary for policy purposes if data are properly identified and the labels are understood. The descriptions that are important for policies will be evident whether the rural population is truly 26.5 percent of the nation, as reported for 1977, or 27.1 percent or 26.3 percent. The rural population is, for policy purposes, about one quarter of the nation. The nonmetropolitan population, which excludes some rural communities that are located within metropolitan areas, was about 3 out of 10 for the same year. These numbers have decreased at a fairly uniform rate until about 1970, (See Table 5) when the decline slowed and even was reversed in many regions. Whether rural or nonmetropolitan data are used, enough people are involved to warrant policy consideration.

One of the most widely publicized findings in demographic statistics in recent years has been the shift in population (Beale, 1976; Morrison, 1979; Ross, 1979). For years, rural areas had been losing population to the cities. Now, over the first half of the 1970s, nonmetro counties have exhibited a higher rate of growth than metro counties and migration patterns have reversed--labeled by demographers as the "rural turnaround." For the first time in this century, nonmetro counties gained population at a greater rate than metro counties, shown in Table 6, and net migration was into rural areas. Between 1970 and 1975, metro counties gained 4.0 percent, nonmetro counties gained 6.9 percent and the completely rural communities

TABLE 5

RURAL POPULATION

Year	Total U.S. Population (millions)	Rural Population (millions)	Rural Population Percent of Total	Farm Population Percent of Total
1880	50,156	36,971	73.7	43.8
1890	62,947	42,254	67.1	42.3
1900	75,995	47,622	62.6	41.9
1910	91,972	49,349	53.7	34.9
1920	105,711	51,406	48.6	30.1
1930	122,775	53,820	43.8	24.9
1940	131,669	57,246	43.4	23.2
1950	150,697	61,770	41.0	15.3
1960	179,323	53,765	30.0	8.7
1970	203,212	53,887	26.5	4.8
1979	219,611	--	--	3.4

Source: Bureau of the Census

TABLE 6

POPULATION CHANGE
1970-1975

Location	Percent Change
Total U.S.	4.8
Metropolitan	4.0
Nonmetro	6.9
Open Country	9.8
Less than 2500	5.8
2,500 - 9,999	3.3
10,000 - 24,999	3.3
25,000 - 49,999	3.1

Source: U.S. Bureau of Census, Current Population Reports, Series P-25, Nos. 649-698.

gained 9.7 percent (Beale, 1976). Among the regions of the country, the West and South gained more than the East and Midwest, although in all regions the completely rural counties exhibited the greatest growth. Figure 1 shows the shifts in migrational pattern between 1970 and 1976 by region.

Paradoxically, the population changes could create a statistical misrepresentation of the situation. As people move into rural areas, the population could be increased to the point where the town is considered as "urban." What appears to be a rural-to-urban migration may be simply a reclassification.

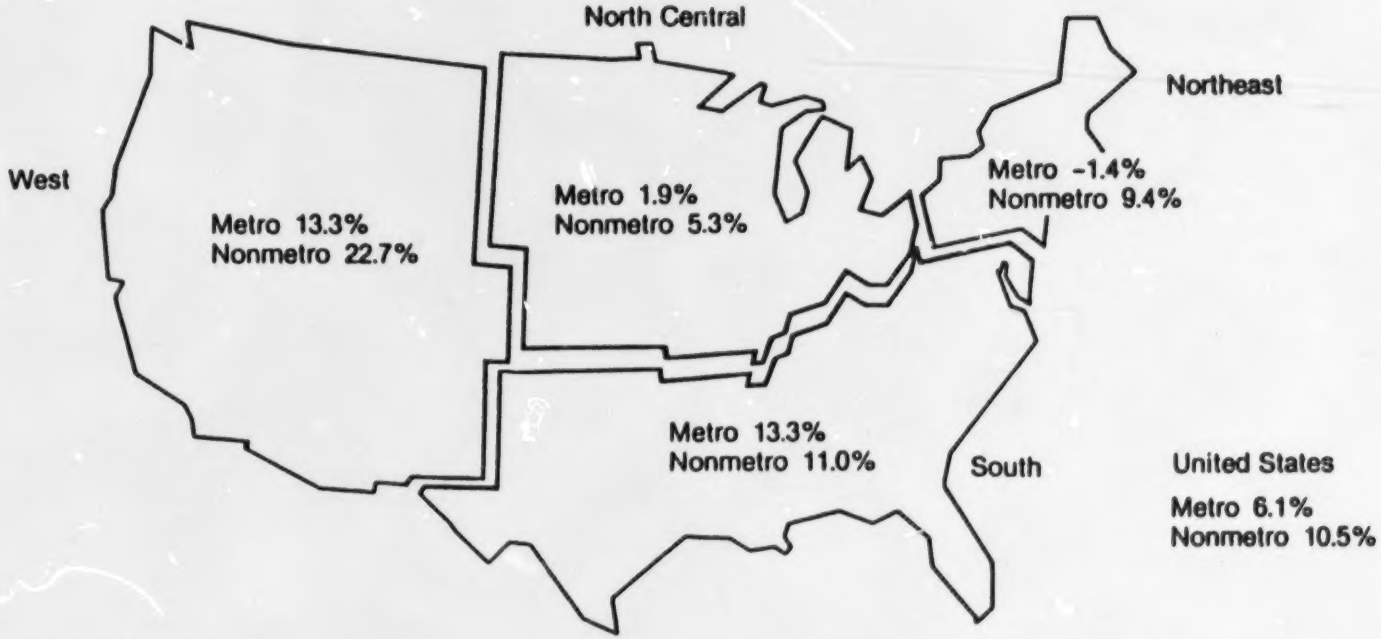
One difference between metro and nonmetro areas that influences the needs for education and other social services is the age distribution of the population, shown in Table 7. As a result of the outmigration of youth due, among other things, to the lack of economic opportunities, and to the inmigration of the elderly to nonmetro retirement communities, rural communities tend to be older. In nonmetro areas, 36 percent of the population is over 44, while in metro areas 31 percent of the population is over 44 (Goland, et al, 1978).

One of the most striking differences between metro and nonmetro residents is in the average levels of formal education, particularly among blacks, shown in Table 8. Only 47 percent of white males on farms and 57 percent of white males in nonmetro, nonfarm areas who were over 25 in 1975 completed high school, while 72 percent of suburban and 66 percent of central city white males completed high school. For black males, the comparable percentages who completed high school were 9 percent, farm; 25 percent, nonmetro, nonfarm; 51 percent, suburban; and 46 percent, central city. Even more striking is the fact that nearly 1 of every 4 of nonmetro black males has not had 5 years of school, shown in Figure 2.

Despite the decline of employment in agriculture, rural residence is often perceived as synonomous with farming. Farm residence, however, also has diminished as rapidly as agricultural productivity has increased. In 1900, 40 percent of the population lived on farms; this dropped to 23 percent in 1940, to 15 percent in 1950, and to about 3 percent in 1979 (see Table 5). About 1 out of every 35 persons or 1 out of 9 rural people lived on farms in April, 1979. Farm residents, as defined in 1978, are people living on a farm with agricultural production of at least $1,000 per year, which excludes those living on non-working farms or those farming only for

FIGURE 1

Change in Regional Population Growth, 1970-78



West and U.S. totals include Alaska and Hawaii.

TABLE 7

AGE DISTRIBUTIONS IN SMALL CITIES, 1970

	Nonmetro Small Cities	Metro Small Cities*	Large Cities
Under 5 Years Old	7.9%	8.4%	8.3%
5 to 18	26.6	28.2	26.6
19 to 24	9.1	8.6	11.3
25 to 44	20.6	23.7	23.3
45 to 64	21.4	20.9	20.5
65 and Over	14.3	10.1	10.0

* Does not include 119 cities under 50,000 population which are central cities of their SMSAs. They are included in the large city category.

Sources: Data Systems and Statistics Division, U.S. Department of Housing and Urban Development, derived from 1970 Census data; "Small City Study Comparisons," U.S. Bureau of the Census, Census Use Research, Statistical Research Division.

TABLE 8

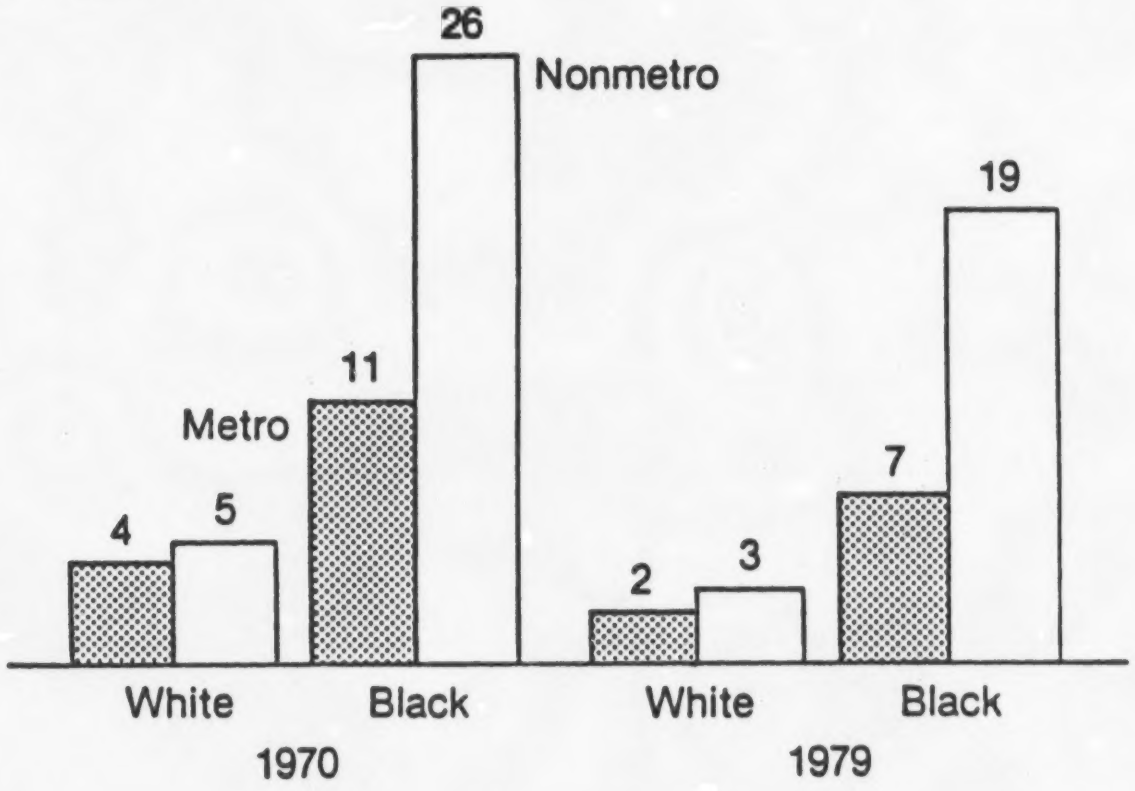
PERCENT COMPLETING HIGH SCHOOL, OF THOSE OVER 25, 1975

	Blacks		Whites	
	Males	Females	Males	Females
Rural-farm	9.4	16.6	46.9	58.8
Rural, Non-farm	25.3	27.0	57.3	58.0
Suburban	50.5	51.5	71.5	70.5
Central city	46.3	47.7	66.2	61.9

Source: Fratoe, 1979

FIGURE 2

Adults with Less than 5 Years of Schooling



Adults with less than 5 years of schooling are defined as functional illiterates.
Source: Bureau of the Census.

the fringe benefits of paid employment (Hill, 1980). Farm women also are likely to have additional work off the farm in order for the farm family to survive economically.

Community Services

Rural communities have fewer government services and smaller and less costly local governments than cities--even on a per capita basis. Rural property owners are therefore not taxed as heavily for noneducation services as urban property owners (Table 9). In 1976, the tax effort of nonmetro rural areas, as measured by nonschool taxes, was 1.19 mills per dollar of income. The average effort for large cities was 2.58 mills. This is somewhat deceiving because it does not describe the true costs to the individual--rural residents must pay directly for some services that are provided by larger city governments, such as garbage collection, fire protection, and social services. The differences in service and taxes are due more to diseconomics of scale and the inability of rural towns to provide the services centrally, than to lack of need or desire for the services (Developmental Needs of Small Cities, March, 1979). Among the greatest unfulfilled needs of rural communities are, in fact, sewers, streets and water facilities, items typically paid for by municipal taxes.

In some instances, rural communities actually do have lower expenses. Police protection, for example, is less costly outside of cities. One of the attractions of rural life for many is the lower crime rate. In 1975, the rate of violent crime in metro areas was almost four times the rate in rural areas and more than twice the rate in small cities, shown in Table 10. The rate of school vandalism and schoolroom violence is also much lower in rural areas (Violent Schools-Safe Schools, 1978). Although the crime rate in nonmetro areas has been increasing, it is still significantly lower than city crime rates.

The Need: The Nature of Rural Deprivation

The case for the neglect of the rural poor has been presented--for example, in the National Advisory Commission on Rural Poverty, 1967, and the Senate Committee Report, 1971. However, because poverty in rural areas has a different face than poverty in cities, the facts bear repeating. The data show that when nonmetro counties are compared to metro counties;

TABLE 9

TAX EFFORT FOR PURPOSES OTHER THAN EDUCATION, 1976

Population Category	Average Tax Effort	
	Nonmetro	Metro
Small Cities	1.61	1.76
Under 2,500	1.19	1.16
2,500-9,999	1.72	1.61
10,000-24,999	1.93	2.02
25,000-49,999	2.15	2.20
Large Cities		
50,000 and over	-	2.58

* 35% or more (one standard deviation) above mean

$$\text{Tax effort} = \frac{\text{Adjusted (non-school) taxes}}{\text{Population x per capita income}}$$

Source: Rural Development Progress, USDA, 1977

TABLE 10

CRIME RATES PER 100,000 INHABITANTS, 1975

	Metro	Small City	Rural
Property	5529	4168	1929
Violent	580	269	167

Source: Rural Development Progress, USDA, 1977.

- o poverty is more prevalent;
- o poverty is greatest among blacks in the rural South;
- o rural poor are more likely to be employed;
- o poor families are more likely to be intact; and
- o health is poorer and health care is less accessible.

Federal programs aimed at poverty inevitably have too few funds to achieve all of their objectives and thus are most effective if their resources are sufficiently concentrated to reach the greatest target population. The dispersed nature of rural poverty, however, hampers the concentration of resources and the provision of social services. It is far easier and more cost-effective to run programs for the poor in cities where a central office can be responsible for reaching thousands. Yet much of the most extreme poverty is in sparsely populated areas.

In 1977, 33 percent of the population lived in nonmetro areas but 40 percent of the poor lived in these areas. Of the 250 poorest counties in the nation in 1975, all were rural. Tarpaper shacks and mobile homes tucked away on back roads and in the woods are out of the line of vision of urban-based policy makers and tend to be overlooked. Yet even the Pennsylvania farmhouse, which looks so quaint from a car speeding down the interstate, on closer inspection might disclose inadequate plumbing, poor insulation and a leaky roof.

Regional and Racial Variations

Statistics on the rural poor are far from uniform across rural populations. National averages hide regional and racial differences. While poor rural counties exist in many States, extreme poverty occurs disproportionately in the South (See Table 11) and even more disproportionately among blacks. Of the 255 poorest counties in the nation in 1975, 237 were located in Southern States; 212 of the Southern counties had an average per capita income of less than $3500. In that same year, 41 percent of all nonmetro blacks had incomes below poverty and almost all lived in the South. In 1975, 12 percent of nonmetro whites had incomes below poverty and about half of all native Americans had incomes below poverty.

TABLE 11

MEDIAN FAMILY INCOME, 1978

Region	Metro	Nonmetro
United States	9362	7032
Northeast	10449	8515
North Central	10191	7549
South	8235	6076
West	10113	8212

Source: The Rural State in Public Assistance, 1978

Data show that farmers also were disproportionately poor--20 percent had incomes below the poverty level in 1975. In 1977, more than 18 percent of all farmers earned less than $5000, including 17 percent of white farmers and 42 percent of black farmers. Among farmers, 39 percent earned less than $10,000 while only 27 percent of other nonmetro residents earned less than $10,000. Poverty is most extreme among elderly farmers, who are not as able to supplement their farm income with off the farm work.

TABLE 12

POPULATION BELOW POVERTY, 1975

	1000s	Percent Poor
United States	25,877	12.3
Metro	15,348	10.7
Central City	-	15.0
Farm	-	16.4
Nonmetro	10,529	15.9

Source: The Rural State in Public Assistance, 1978

Incomes of rural people are also low outside the South, but tend to be above the poverty line, in part due to the much smaller rural minority population. Vermont, Maine, and Idaho, for instance, have very low per capita incomes but much lower proportions of their populations are below poverty level than even wealthier (on a per capita basis) Southern States. The cost of living tends to be higher in the Northern States however, causing need to be underestimated. Thus, many Northern poor in need fail to qualify for targeted assistance programs. For example, although Vermont is ranked 42nd in per capita income, no county in the State qualifies for direct federal assistance under the proposed Youth Employment Bill passed by the House in the fall of 1980, which would allocate money based on

concentration of need-incidence of poverty or numbers of youth below poverty.

The Rural Poor Family

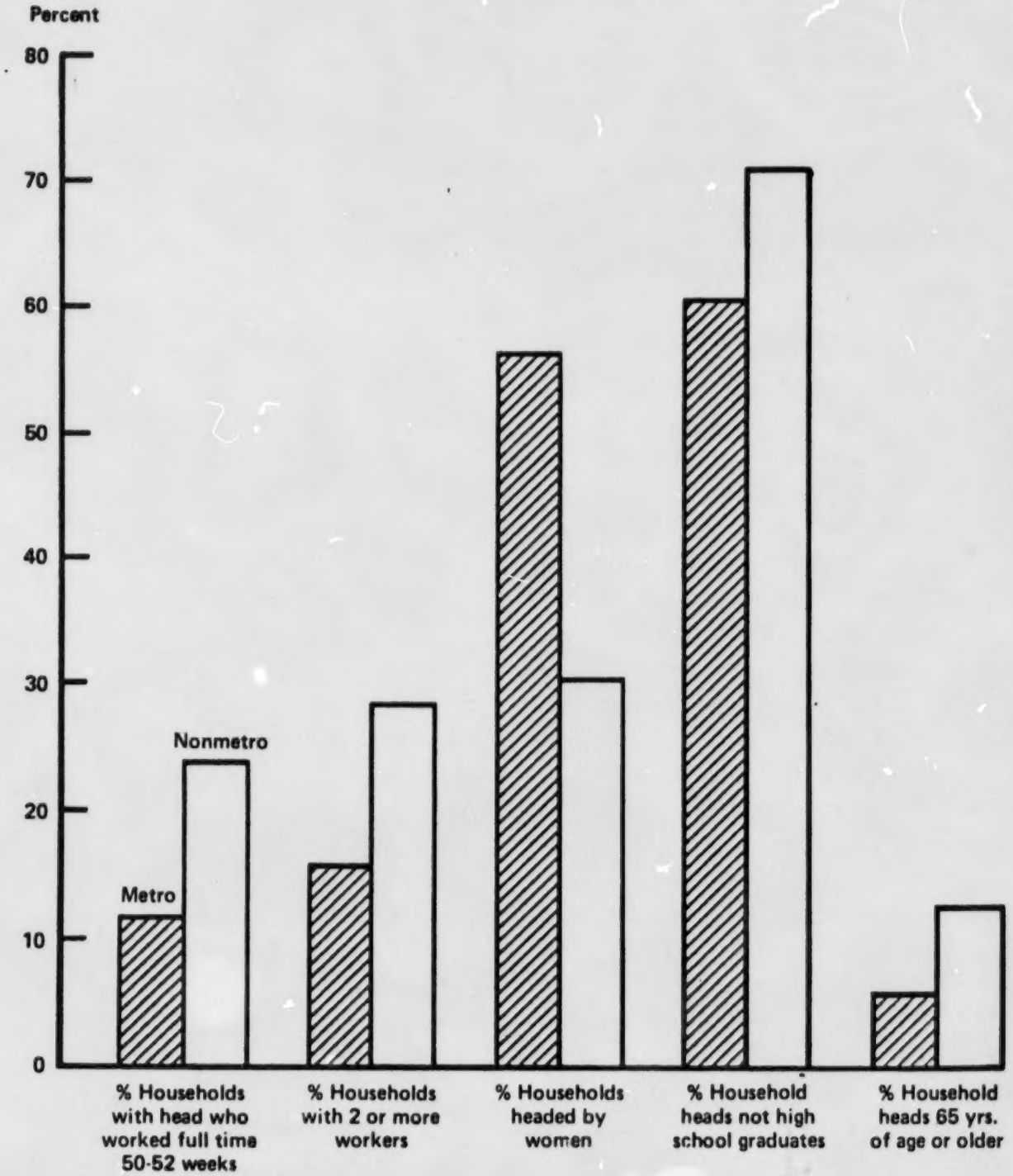
Many of the stereotypical characteristics of poor people do not hold for rural areas. For instance, rural poverty is not as often associated with unemployment. In 1975, 1 out of every 4 poor families living in nonmetro areas had a member who worked full time for the entire year and nearly 30 percent of the households below poverty had two or more wage earners (See Figure 3). Underemployment is as large an issue as unemployment in rural areas, but much less visible and less easily counted.

Rural poor families are more likely to be headed by a male (70 percent) than the urban poor families (33 percent). Therefore rural poverty is not simply a result of broken homes and abandoned wives and children. Since in most States intact families and farm families are ineligible for Aid For Dependent Children (AFDC), the aid to the rural poor is limited. 1 in 4 nonmetro poor families has earnings as its only source of income. The other three fourths has either a combination of earned and "unearned" income (43 percent) or only "unearned" income (30 percent). Unearned income includes child support, alimony, and annuities as well as payments from government programs, veterans benefits, AFDC, social security, unemployment insurance, and other public assistance. Less than half of the nonmetro poor, however, received any public assistance and only about a quarter received AFDC. Only one-fifth of the nonmetro poor received all or some portion of their income from public assistance; one third of the metro poor received all or some portion of their income from public assistance (National Rural Center, 1978). Of people eligible for food stamps in rural areas, a smaller percentage actually received them than in urban areas. Further, fewer of those in rural areas who received food stamps received any public assistance at all.

In summary, then, a smaller proportion of the rural poor receive government benefits than urban poor. The nonmetro poor are either more self-reliant, and less willing to use public assistance programs or the public assistance programs are failing to reach the rural areas. Thus, new formulas programs that target funds based on numbers receiving assistance from existing programs will underserve rural areas.

Figure 3

COMPARATIVE PROFILE OF POOR HOUSEHOLDS IN METRO AND NONMETRO AREAS, 1975



Source: U.S. Bureau of Census

Rural Health and Health Care Services

Rural areas have fewer health care services than urban areas. Hospitals are few and far between, the number of general practitioners is declining and those remaining are overburdened. Specialized clinics just do not exist in sparsely populated areas. Even in the clean country air and with slower pace, the health of rural residents is not better than city dwellers. A study of the health status by county, conducted by the United States Department of Agriculture (USDA), and based on census data, reported that the index of health for metro areas was 8 percent higher than that of nonmetro areas. The index was composed of infant mortality rates, for which nonmetro was 11 percent higher than metro; total mortality rates, for which nonmetro was 5 percent higher than metro; and influenza and pneumonia mortality rates, for which nonmetro was 15 percent higher than metro (Ross, Bluestone and Hines, 1979).

A Department of Health, Education and Welfare (HEW) study of health care reported that there were twice as many doctors per 10,000 residents (19.3) in metro areas than in nonmetro areas (8.0), shown in Table 13. The discrepancies are not quite as great for dentists (6.0 in metro areas and 3.7 in nonmetro areas) but still significant. There are even fewer doctors in the nonmetro areas of the Southern and North central States (just over 7 per 10,000) and there were fewer than 3 dentists per 10,000 in the nonmetro South. (Health, 1978). The trend, however, appears to be reversing and the number of general practitioners, and even specialists is now increasing more rapidly in rural areas than in cities.

TABLE 13

INDICES OF HEALTH CARE, 1975

	Physicians/100,000			Dentists/100,000		
	Metro	Non-Metro	Nonmetro nonadjacent less urbanized	Metro	Non-Metro	Nonmetro nonadjacent less urbanized
United States	19.3	8.0	7.2	6.0	3.7	3.6
Northeast	22.5	10.9	9.6	7.2	4.8	4.5
North Central	17.3	7.5	6.9	5.6	4.2	4.4
South	17.6	7.2	6.6	4.8	2.8	2.6
West	20.2	9.5	8.4	6.9	4.8	4.8

Source: Health, United States, 1978

The Rural Landscape

What makes rural America truly distinctive is the land and how the people relate to it. The geography of rural America is as diverse as the inhabitants, affecting the delivery and costs of educational and social services. To design effective vocational education educators must know the topography of the areas to be served and what delivery systems best fit. For example, New Mexico cities can be separated by many miles geographically isolating population settlements and making area centers inaccessible to many. Vermont, which is more densely populated, retains a strong New England tradition of local autonomy creating a social rather than geographic isolation among population settlements. Attempts to establish programs in New England that do not fully involve each community will fail (Gjelton, 1979).

Understanding the rural environment is as important as understanding the people who live there. Compared to communities within metropolitan counties,

- o rural geographic conditions are more varied;
- o rural communities are less accessible; and
- o rural farm land is declining and ownership is becoming more concentrated.

Population residing in rural areas and population density describe very different geographic characteristics and attempts to use them interchangeably can lead to confusion, particularly when statistics are aggregated to the State level. Nevada, for instance, turns out to be 47th in the proportion of its rural population--less than 20 percent are rural. Yet its population density is only 4 per square mile, the third most sparsely populated State. California, the least "rural" State based on population figures still has the 10th largest rural population, and is second in agricultural production. In general, the Western States are more sparsely populated (22 per square mile) but also more urban (83 percent), as shown in Table 14. The Southern States are the most rural (35 percent), but much more densely populated (78 per square mile). An analysis of only nonmetro counties would reveal a very low population density in the West and thus a quite hard-to-serve population.

TABLE 14

POPULATION DENSITY

	Population (1000s) 1978	Area, Sq. Mi. (1000s)	Population Density 1978	Percent 1970
United States	213,060	3,540	60	26.5
Northeast	49,457	163	303	19.6
Midwest	57,640	752	77	28.5
South	68,051	874	78	35.4
West	37,912	1.751	22	17.1

Source: Bureau of the Census, 1978

Ample space in which to live has its drawbacks as well as its benefits. Lack of public transportation--taken for granted in most large cities--bars many rural people from participating in education, job training programs, social services, and even the job market. Rural America is highly dependent on the automobile and suffers acutely from such things as energy shortages and poor road conditions The rising cost of both cars and fuel causes more hardships for rural inhabitants than for city dwellers. In 1974, before the energy crisis really hit, 15 percent of all nonmetro households did not have access to an automobile (Rural Development Progress, 1977). The poor, the young and the elderly are particularly handicapped by lack of transportation.

There is almost no public transportation to supplement private means. In 1980 there were only about 1,300 public buses serving non-urbanized areas. The more sparsely settled States had virtually no transportation in the more rural areas. Utah had only nine local public buses operating in rural areas, Texas had two, New Mexico had none, Idaho had three, and South Dakota had none (United States Department of Transportation, 1980). Limited intercity transportation also restricts mobility in rural area. With the slow demise of rail passenger service to rural areas, the buses are the only remaining public links between the country and the city.

Although farms and ranches are getting larger, the total amount of land being farmed or ranched is giving way to urban sprawl. Farm and ranch land is declining (See Table 15).

TABLE 15

FARMLAND

	Farms Average	% of Land Farmed	% of Farmers working More than 100 days off farm
United States	440	44.9	35.2
East	183	22.4	36.6
Midwest	357	75.4	29.7
South	329	54.7	40.9
West	1360	29.1	35.9

Source: Bureau of the Census, County and City Data Book, 1977

Farmland decreased by almost 6 million acres per year between 1960 to 1979 (Coughlin, 1980). Actual or proposed economic development often upsets the stability of land prices, inflating farm lands above their use value (Huffman, 1977). Between 1970 and 1980, farm land increased by over 22.5 percent, almost 2.5 times the rate of inflation. In Iowa farm land jumped 33.5 percent for the same period. Spiraling land prices entice marginal farmers to subdivide and sell sections to new residents; in other areas, as property taxes rise, land is simply diverted to more profitable purposes.

The land remaining is becoming concentrated among fewer farmers. New York reported 1,000 fewer farms in 1980 than in 1979. In 1950, the average size of a farm was 213 acres; in 1965 the average holding was 339 acres; in 1979 it was 443 acres (Coughlin, 1980). Today the 1 percent largest of farm and ranch owners possess 29 percent of all the land while the 50 percent smallest own only about 5 percent of all the land, as shown in Table 16. The proportion of all land used for farming or ranching, 60 percent in 1945 was down to 45 percent by 1978.

TABLE 16

DISTRIBUTION OF LAND OWNERSHIP, 1979

Size of Holding, Acres	Owners, 1000s	Percent of All Landowners	Percent of Total Acres
Less than 50	3,577	57	6.2
50 - 199	1,769	28	23.0
200 - 499	621	10	23.0
500 - 1499	204	4	20.2
1500 and over	55	1	27.6
Totals	6,226	100.0	100.0

Source: Who Owns the Land, Economic Statistics and Cooperative Services 70, September, 1979.

Since property wealth is the basis for local taxes and is frequently used as a proxy for wealth in distributional formulas, the trends in rural property are an important element of education policy.

Rural Jobs and Rural Work: Distinctions and Definitions

Knowledge of the characteristics of rural areas and rural people is important to the social objectives of federal policies and, similarly, knowledge of the character of rural economics and labor markets is important to the economic objectives of federal policies. Vocational education must correspond to local labor market needs. Yet the unique features of rural economics are often obscured by the use of State aggregated information and by conventional ideas about economic growth that have developed from urban/industrial expansion. Rural economics do not always fit these patterns. When rural areas are compared to urban areas:

- nonagricultural business and industry is increasing much more rapidly;
- the largest number of job opportunities tend to be limited to one or two industries;
- there is a higher incidence of self-employment and a higher proportion of workers with more than one source of income;
- wages are lower and underemployment is more pervasive;
- rural communities are still dependent to a large degree on agriculture and agriculture-related business; and
- job search mechanisms are informal.

The rural economy, through most of the first half of this country, was easily distinguishable from the urban economy. When most of rural America was economically dependent on agriculture and extractive industries, the urban-rural differences, and thus vocational education needs, were clear--vocational agriculture dominated rural schools and the trade and industrial programs dominated the urban schools. But as agricultural productivity climbed, agricultural employment opportunities diminished, leaving many rural communities with no viable base of economic support. The The remedy, stimulated by Federal programs and adopted by rural communities, was to prepare communities to support new manufacturing and service industries to replace the jobs lost to agricultural mechanization and consolidation.

Subsequently, hundreds of millions of Federal and State dollars went into strengthening the infrastructure-the roads, schools, and development of industrial parks.

As a result of the Federal and State rural redevelopment programs, the decline of farming and the growth of manufacturing, many of the features of urban and rural economies have been confounded. Yet enough distinctions remain to meet special consideration of ruralness in local development, education, and employment and training policies.

Industrialization and Domination

Industry is not new to rural America. The East is dotted with one-industry towns--coal mining towns in Appalachia and mill towns in the South and in New England. The history of rural industrialization has been one of domination and paternalism. The company dominated the economics and politics of the town, and as the largest employer, kept the workforce as dependent upon it as possible. Unionization in rural areas was rare. Since the company was the "only game in town," and often owned even the stores and supporting services, control was complete.

Today, with renewed emphasiss on rural industrialization, it is safe to assume that the number of one- and two-industry towns is growing. State economic development strategies, particularly in the South, have been directed at moving labor-intensive industries to nonindustrialized rural areas to take advantage of surplus labor and lack of wage competition. The conditions in these new industrial towns, however, is no longer the same. The single company of today is less likely to be a family-owned business or independent corporation and more likely to be a subsidiary of a much larger corporate entity. The economic domination persists but industry has improved the treatment of workers. But, because it usually brings in many new people, it does not have the some political domination or the same long-term commitment to the community. Therefore, when locations with lower labor costs are discovered, new industry is as likely to leave as quickly as it came.

The conventional notion of low-skill industrialization is that it is only an early stage of industrial growth and technological change, and that as the work force becomes better educated and more disciplined, higher paying industries will join or replace the low-skill industry and low paid

workers will be upgraded. Studies of sites where this has happened, however, indicate that plans go astray and in fact the higher skill jobs go to workers imported from outside the community and much of the income generated leaves the community. Thus, the benefits have been less than anticipated.

One of the reasons why the South has been able to attract business to rural areas is that many of the former deterrents to economic growth such as poor roads, lack of waste disposal and water capacity, and poor schools, have been taken care of at government expense, through the programs of the Appalachian Regional Commission, the Economic Development Administration, Farmers' Home Administration, and the Tennessee Valley Authority. Therefore, rural communities that were once rejected out-of-hand for industrial development are now considered prime sites by corporate planners. Service industries, too, are moving to rural areas at an even greater rate than manufacturing. Service industries, however, tend to be less labor intensive and are more apt to hire more women and youths not previously in the labor market for the low paying clerical jobs.

Southern States have been more aggressive than other States in recruiting business to relocate in rural areas. Half of the increase in nonmetro manufacturing jobs between 1962 and 1978 occurred in the South--much of it before 1970. Southern states economic development agencies openly have wooed Northern industrialists to convince them to move South, to a "warmer" business climate with lower wages, surplus labor, lower taxes, and, right-to-work laws. A study of migration of firms out of New England between 1969 and 1974 showed that a third went to the Southeastern states* (Jusenius and Ledebor, 1977).

The industries participating most heavily in the revitalization of the rural South have been the textiles, apparel, food, and chemical industries--all but the last being labor-intensive, low-skill requirement

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* It is difficult to discern the degree to which rural jobs were created at the expense of urban jobs, or Southern jobs at the expense of Northern jobs. Studies of plant relocations would indicate that the numbers are small (Miller, 1979) and that most plants that relocate remain very near their old site. Yet critics of business flight point out that it is not easy to identify all relocations. They sometimes occur over time, by slowly phasing out a plant in one area or simply not replacing worn out equipment, and investing in a new plant somewhere else, with a slightly different product or process (Bluestone and Harrison, 1979).

industries. More recently, the attractive business climate of the South has attracted service industries for similar reasons. Service employment in the South increased by 33 percent between 1970 and 1976. The beneficiaries of the growth, however, have been distributed selectively, concentrated among white males. Although Blacks comprise 40 percent of the work force in the South, they have gained only 16 percent of the new jobs (Bruno and Wright, 1980). From 1950 to 1970 in Alabama, when industrial employment increased 20 percent, employment in the State's black belt dropped 30 percent (Marable, 1979).

The North central States have been less aggressive, but still persistent, in trying to attract industry. Unable to offer the same low-wage, non-unionized work force of the South (most of the Midwest has a higher wage rate and higher union membership rate than the nation as a whole), and unable to generate the same level of Federal support, the North-central States attempt to "sell" their existing community services--transportation networks, roads, water and sewage systems, and, especially, an educated, motivated, and skilled work force (Bruno and Wright, 1979). Between 1962 and 1978, nonmetro manufacturing jobs increased in the North-central States by 48 percent--an increase of 564,000 new jobs. Metro manufacturing jobs increased by only 400,000 during the same period. (Haven and Holling, 1979) A large number of the new nonmetro businesses are related to the indigenous resources of the region, agriculture, and forestry. The largest growth has been in related industries such as feeds, paper, farm machinery and trucks, but it has also included household appliances, plastics, and instruments.

Rural towns in the Northeast, with strong traditions of self-reliance, have been the least susceptible to domination by single industries. Although there has been some industrialization in the rural Northeast, the mass production, labor-intensive industries have not chosen the Northeastern States as frequently for new plant sites. Wages in the Northeast are relatively high, the climate is less desirable, taxes are high, and zoning restrictions are more common. More important, the Northern States have been more particular about the businesses they recruit and are more apt to consider such things as the effects on the environment and the quality of work. General levels of education are higher in the North, but the customized vocational education training programs are not as strongly promoted.

Public training tends to be "constrained" by demanding from participating firms a commitment to a minimum number of new jobs, wages above the legal minimum, or union negotiation clauses. The message now being sent to the North by development strategists trying to rebuild Northern economics is clearly to be satisfied with less for workers in order to increase the gross number of jobs (Short and Levin, 1979). Nonmetro jobs in manufacturing in the Northeastern states increased by only 13 percent between 1962 and 1978 (Haren and Holling, 1979).

The rural areas of the Western States are the least populated parts of the nation. Communities are isolated from one another and thus less attractive as industrial sites, despite the strong business climate of the sun belt states in the West. In the West, industrialization is much more apt to occur in or near urban areas and, in particular, near the medium size cities such as Boise, Idaho, which offer a compromise between small town environment and large city benefits. Nonmetro manufacturing jobs increased by only 10 percent between 1962 and 1978 (Haren and Hollings, 1979).

Much of the rural economic growth in the West has been in businesses related to the indigenous resoures of the region and energy-related industries (Baker-Smith, 1980). Some of this new work requires sophisticated technological skills and therefore offers high wages. But other industries that are proliferating, especially along the Mexican border, are in non-durable manufacturing (which is growing twice as fast as durable goods manufacturing in the West), which pays low wages, offers little advancement, and is unstable, moving where the costs are lowest.

In contrast to the manufacturing employment, service employment is booming as a result of the increase in tourism and recreation in the West. Jobs in the service industries increased by 48 percent between 1962 and 1978. The service industries, like Southern manufacturing, require large numbers of low-paid, low skill employment, such as hotel and restaurant workers, clerks and commercial cleaners, and thus the quality of work as well as employment is at issue in the West.

The growth of large-scale business and industry in rural locations has improved rural conditions simply by putting more people to work. It has not, according to most studies, helped those most in need, the disadvantaged and minorities, or has it significantly improved income disparities.

TABLE 17

PERCENT CHANGES IN EMPLOYMENT BETWEEN 1970 AND 1976

	Northeast		North Central		South		West	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
Mining	16.5	13.5	15.0	- 1.0	26.6	23.4	29.6	0.4
Construction	-9.0	-22.6	9.9	-14.4	23.8	6.5	73.8	-3.5
Manufacturing	-10.0	-18.5	-1.1	-10.8	7.6	-1.5	12.6	-0.1
Transportation, Comm, Utilities	8.5	-10.5	6.3	- 3.9	9.4	8.6	20.7	3.7
Wholesale, Retail Trade	21.5	1.5	19.7	9.5	24.8	21.5	31.1	22.6
Finance	19.9	3.1	22.3	11.8	32.1	28.2	48.7	25.0
Services	18.1	13.2	26.3	23.5	33.6	31.4	48.0	29.5
Government	17.6	11.1	9.5	15.9	20.0	25.5	21.3	21.4

Source: Coltrane, 1978

Industrial jobs paying below the national average have increased much more (128 percent) than jobs paying above the national average (28 percent) since 1950. Thus, while industrial growth has improved the employment picture in rural areas, it has not always improved the income picture or the quality of work.

Independence and Self-employment

Despite the publicity given rural industrialization, the single, one-shift production job remains less among rural workers than among urban workers. Rural workers are often forced to be more self-reliant, and piece together economic opportunities to make a living. Many rural residents choose to operate farms for their own use or for supplementary income. While the modern city worker is frequently a specialist, the rural worker is a jack-of-all-trades.

The implications of both the lack of job opportunities and more independence are increased growth of self-employment, cottage industries, small businesses, and local producer cooperatives. The opportunities created by new and existing small businesses are underestimated and underexploited in education and training policy. In 1978, there wre almost 12 million self-employed people in the nation, including almost 9 million in non-farming occupations. Thus, coincidental with the publicity given "reindustrialization" by the current administration, there is also Federal support for small-scale, community-based businesses and even, for the first time in years, for small-scale farming (Bergland, 1980). Which policies predominate locally depends to a great extent on State and local policies and desires.

In 1975, 11.5 percent of the U.S. labor force was self-employed; 6.8 percent had only self-employment income and 4.7 percent had both self-employment income and salary or wage income. In nonmetro areas, however, 17.4 percent were self-employed, 10.9 percent with only self-employment income and 6.5 percent with both (See Table 18). Even discounting farm employment, nearly 10 percent of the nonmetro work force was self-employed.

The variations between metro and nonmetro areas are especially startling when disaggregated by economic sector. High self-employment would be expected in agriculture, where over half are, in fact, self-employed. But one quarter of those in construction, nearly one-third of those in business and repair services and one-fifth of those in personal services

TABLE 18

SOURCE OF INCOME, PERCENTAGE OF THE LABOR FORCE 1975

Sector	Total Self-employed	Self-employment only		Self-employment plus salary or wage income	
		Nonfarm	Farm	Nonfarm	Farm
US-Nonmetro	17.4	6.3	5.1	3.5	3.4
US-Metro	8.9	4.7	0.6	3.1	0.6
NE-Nonmetro	11.2	5.3	1.7	3.4	1.0
NE-Metro	7.7	4.6	0.3	2.5	0.3
MW-Nonmetro	21.5	6.3	8.3	3.6	4.6
MW-Metro	8.2	3.9	0.9	2.7	0.8
South-Nonmetro	16.7	6.4	4.5	3.1	3.6
South-Metro	9.5	5.0	0.7	3.3	0.8
West-Nonmetro	17.5	7.0	3.7	4.6	2.8
West-Metro	18.9	5.5	0.6	4.3	0.6

Source: Nilsen, 1980

TABLE 19

PERCENT SELF-EMPLOYMENT, BY SECTOR
1975

	Nonmetro	Metro
Total	17.4	8.9
Total-Male	23.4	11.8
Total-Female	8.9	5.0
Sectors		
Agriculture, Forestry	53.9	35.5
Mining	9.5	6.2
Construction	24.0	16.2
Durable Manufacturing	8.2	4.0
Non-durable Manufacturing	5.6	3.9
Transportation Communications	12.4	6.1
Wholesale Trade	14.2	8.5
Retail Trade	14.3	8.1
Finance, Insurance & Real Estate	13.9	8.1
Business & Repairs	30.7	16.7
Personal Services	21.7	14.1
Recreation, Entertainment	13.7	16.8
Professional Services	8.7	8.7
Public Administration	9.5	3.2

Source: Survey of Income and Education, Bureau of the Census, 1976

in nonmetro areas are self-employed--a rate far higher than their metropolitan counterparts (See Table 21). About 1 in 7 of those in Wholesale and Retail Trades, Recreation and Finance, Insurance, and Real Estate in nonmetro areas are also self-employed. In all, 1 in every 4 males living in a nonmetropolitan county is self-employed.

The high rate of self-employment outside of agriculture suggests large number of very small businesses in nonmetro areas (called "micro-business" when they employ only a very few people). In one county in rural Maine, it was recently reported that there were more than 1,000 micro-businesses involving over one-third of the work force (ACCION, 1980). Despite the rural industrial renaissance, rural economies remain largely dependent on small businesses. In 1979 the House Committee on Small Business warned:

> The subcommittee also recognizes the fact that any attempts to enhance the development of rural areas requires a strong and viable small business community for it is this sector which constitutes the foundation of our non-urban areas. (House Committee Report, August, 1979.)

Nationally, most new jobs created are in small businesses. More than 98 percent of the existing commercial establishments are small businesses. Between 1969 and 1976, 77 percent of the employment growth came from firms with fewer than 50 employes. In contrast, the Fortune "100" contributed less than 2 percent of the new jobs, yet they control almost half the corporate assets.

A study of 82 micro-businesses in Maine revealed some interesting features of small business (Teal, 1980). Small firms are usually not very labor intensive, have little working capital and a small investment in equipment. The average employment in the survey was 4.4 employees, half of whom were unpaid family members. The smallest businesses surveyed did not pay lower than average wages, as other data suggest (Gordon, 1980). The lower wages were actually paid by the largest firms in the sample.

There are two implications for education policy of training for work in small businesses. First, the job requirements of small businesses are, by necessity, more diverse than those of large businesses. Small firms, like small school districts, do not have the luxury of buying specialists. To compensate, a broader range of skills is demanded of the workers. Moreover, the social relations are generally more informal and the

"production line" mentality is less likely to exist in a small or micro-business. Second, there are fewer opportunities for a given occupation--often not enough to justify a program and thus specialized occupational programs may have to be merged into more generic programs.

Rural Labor Market Statistics

The higher rate on nonmetro self-employment is important in terms of the educational needs it implies, but is also important because of its effect on the labor statistics. The self-employed may earn less and less in a weak economy yet rarely become officially unemployed and therefore unemployment rates would not accurately reflect the need for income in rural areas. This, unfortunately, is only one of many flaws in statistics on the rural labor market.

Typical government unemployment rates include only those unemployed who are actively seeking work. Rural job seekers generally do not go to employment offices or rely on newspaper advertisements. Usually they know what is available by word of mouth and therefore are more likely to be discouraged workers. Table 20 indicates a rate of discouraged workers, part-time workers (out of necessity rather than choice), and subemployment about 50 percent higher in nonmetro areas than in metro areas.

TABLE 20

PERCENT UNDEREMPLOYMENT, 1977

	Nonmetro	Metro
Discouraged workers	1.20	0.95
Part-time workers for economic reasons	4.30	3.30
Source: Nilsen, 1980		
Sub-employment (Males) (1970)	25.0	17.8

Source: Tweeten, 1978

The problem is exemplified by a recent study of Gladsden County, Florida. The county reported an unemployment rate of just over 9 percent, local industries were declining rapidly and laying off workers. An independent survey found that 26 percent were actually unemployed. The original

count was based on unemployment compensation for which most of the laid-off workers were ineligible (Korschirg, et al., 1978).

Unemployment rates, which are frequently used as a criterion for the distribution of federal program money, were reported to be much higher in cities than in nonmetro areas in 1980 (Table 21).

TABLE 21

PERCENT UNEMPLOYMENT RATES, 1980

	Central City	Suburb	Nonmetro Farm	Nonmetro nonfarm
Total	8.4	6.2	2.8	7.8
Males, over 20	7.4	5.1	1.7	6.5
Females,over 20	6.9	5.3	2.8	6.8
Blacks	14.6	10.7	6.9	13.7
Youth, 16-19	22.7	16.3	8.8	18.6

Source: Leon & Reeves, 1980

Youth unemployment in 1980 was reported as 23 percent in cities; 19 percent in nonmetro; nonfarm areas; and only 9 percent among farmers. Similarly, black unemployment was 15 percent in cities; 14 percent in nonmetro; nonfarm areas; and 7 percent for blacks on farms. These numbers are obviously in contrast to poverty data for the same groups. A glance at the difference between unemployment rates in nonmetro poverty and nonpoverty counties, in Table 22, reveals very little difference--indicative of the nature of rural unemployment. Therefore, unemployment may not indicate need; the rural poor are often drastically underemployed. This has been brought repeatedly to the attention of Federal policy makers (Marshall, 1974; Tweeten, 1978; Nilsen, 1980), yet unemployment is consistently used in Federal allocation formulas.

TABLE 22

PERCENT UNEMPLOYMENT FOR POVERTY AREAS, 1980

	Nonmetro		Metro	
	Poverty	Non-Poverty	Poverty	Non-poverty
Total	7.7	7.1	13.4	6.5
Youth, 16-19	18.4	17.2	33.9	17.2

Source: Leon & Reeves, 1980

A 1978 study by the National Commission on Employment and Unemployment Statistics stated:

> The ineluctable conclusion from the foregoing examination of issues is that no amount of massaging of unemployment statistics will provide appropriate measures of employment needs in rural areas. Refinement of data gathering and processing techniques will not salvage the situation. Unemployment is simply the wrong concept. (Tweeten, 1978)

Agricultural Traditions and Agriculture Employment

Despite the rapid rate of industrialization, agriculture continues to retain its hegemony over rural communities in many States. Agricultural employment has declined precipitously, from 12.5 million employed in 1980, to 10 million in 1950, to 7 million in 1960, to less than 4 million in 1978. Today, while only 9 percent of the nonmetro work force is in farming, agricultural production is not declining. Instead, shifts to large scale farming demand new skills. Thus, a growing part of the labor force is needed for agricultural-related and agribusiness occupations, such as feed products, farm equipment, food processing, paper products, and marketing. The size of the labor force employed directly in production farming understates the influence of agriculture in the rural economy and in rural politics. It also undercounts the number of persons in agricultural occupations by those who farm for their own needs or for inkind unreported income (See Table 23).

TABLE 23

PROPORTION OF EMPLOYED UTILIZING
AGRICULTURAL/AGRIBUSINESS SKILLS, 1975

United States	6.1
Northeast	2.8
North Central	8.8
South	8.4
West	7.3

Source: USDA, 1975

The strength of agriculture is often brought to bear in the political arena. As the single rural constituency with both the cohesiveness and the power to influence policy, the farm bloc has, it seems, even more influence than its votes would suggest. A disproportionate number of members of Congress and State legislators represent agricultural areas.

The Consequences: Framing the Portrait

While the numbers may portray an "interesting" picture from a purely descriptive standpoint, they also are quite relevant to Federal policy. At the most elementary level, the data affect the way in which funds are distributed, both by formula and by application, among recipients. If, for instance, data on unemployment do not mean the same things in urban and rural areas, they distort any formulas on which they are dependent; i.e., unemployment rate is a criterion in most employment and training, and economic development programs including vocational education. If public assistance programs are used as a proxy for poverty and if public assistance programs are undersubscribed in rural areas, then the distribution funds based on public assistance participation rates affect suburban and rural areas differentially. Many programs, including vocational eduation, do use AFDC or number of people on welfare as distributional criteria.

At a slightly more sophisticated level, cost-of-living differentials and scale differences that affect per pupil costs mean that equivalent resources may require different per pupil expenditures for districts. The knowledge of what services dollars buy in specific locales is necessary to judge the outcomes of the services.

Moreover, lack of understanding of the nature of rural economies and rural labor markets can lead to inappropriate policies. Where small

business and self-employment are common, vocational education could teach more generic skell and encourage independence. In these instances standard placement rates and employer satisfaction may not measure success. The data also indicate that the role of agriculture in the rural economy is understated in labor market projections and thus in educational planning.

The institutions that provide the education to rural areas also differ from those in urban areas. Their size restricts the services they can offer, and sometimes makes them ineligible for Federal or State funds. Isolation makes it more difficult to attract the specialized personnel needed to expand offerings and improve programs.

Thus, the data suggest that the way in which programs are implemented, and level of support needed, and the consequences are highly dependent on the nature of the population and location served, and local conditions need to be carefully considered in all State and Federal policies.

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